



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,598	05/26/2005	Bo Lindell	9342-52	9197

54414 7590 07/11/2006

MYERS BIGEL SIBLEY & SAJOVEC, P.A.
P.O. BOX 37428
RALEIGH, NC 27627

EXAMINER

TRAN, CHUC

ART UNIT PAPER NUMBER

2821

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/536,598

Applicant(s)

LINDELL, BO

Examiner

Chuc D. Tran

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>05/26/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 21-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Kwak (US 2003/0129950).

Regarding claims 21 and 39, Kwak disclose a portable communication device in Fig. 3 and Fig. 4, comprising:

- a first part (101) comprising a first antenna element (126) located within and extending through a portion of the first part and radio circuit feeding antenna elements (122a) (Fig. 3);
- a second part (102) hingedly joined to an end of the first part for providing at least one open and one closed position of the phone (Fig. 5);
- a hinge element (103) connected to the first and second parts (Fig. 3), stretching along the end of the first part for providing rotation of one of the first and second parts in relation to the other one of the first and second parts around a first axis and having a first and second end (Fig. 4), wherein a second antenna element (121) is provided in the interior of the hinge element (103) (fig. 4);
- a third antenna element (124) located within and extending through a portion of the second part (102) and being electrically connected to the second antenna element (121) at least at the first end of the hinge element (103) (Fig. 3); and

Art Unit: 2821

- a radio circuit (125) connected between the first (126) and second antenna elements (121)

(Fig. 3).

Regarding claim 22, Kwak disclose that the second antenna element (121) encircles the axis of rotation defined by the hinge element (103) (Fig. 3).

Regarding claim 23, Kwak disclose that the radio circuit (125) is connected to the second antenna element between the first and second ends of the hinge element (Fig. 3).

Regarding claim 24, Kwak disclose that the radio circuit (125) is connected to the second antenna element in proximity of the second end of the hinge element (Fig. 3).

Regarding claim 25, Kwak disclose that the radio circuit (125) is connected to the first antenna element at approximately the connecting point between the second antenna element and the radio circuit (Fig. 3).

Regarding claim 26, Kwak disclose that the first antenna element is electrically connected to the second antenna element at the first end of the hinge element so as to provide a gap between the first and second antenna elements, the length of which is substantially defined by the first and second ends of the hinge element (Fig. 5).

Regarding claim 27, Kwak disclose that the electrical connection between the first and second antenna elements provides a screen for conductors provided between at least the first part and the hinge (Fig. 4).

Regarding claim 28, Kwak disclose that the electrical connection between the first and second antenna elements is provided by screening of a screened cable (Fig. 3).

Art Unit: 2821

Regarding claim 29, Kwak disclose that the connection between the second and third antenna elements provides a screen for conductors provided between at least the second part and the hinge (Fig. 3).

Regarding claim 30, Kwak disclose that the electrical connection between the second and third antenna elements is provided by screening of a screened cable (Fig. 3).

Regarding claim 31, Kwak disclose that the second and third antenna elements are electrically connected at the first end of the hinge element so as to provide a gap between the third and second antenna elements, the length of which is substantially defined by the first and second ends of the hinge element (Fig. 5).

Regarding claim 32, Kwak disclose that the third and second antenna elements are provided with at least one connection configured to interconnect the third and second antenna elements when in the open position of the device and to disconnect the third and second antenna elements when the device is in the closed position (Fig. 5).

Regarding claim 33, Kwak disclose that the at least one connection is a continuous connection substantially provided along the entire length of the hinge element (Fig. 3).

Regarding claim 34, Kwak disclose that the at least one connection comprises a plurality of connections configured to interconnect the third and second antenna elements when in the open position of the device and to disconnect the third and second antenna elements when the device is in the closed position (Fig. 5).

Regarding claim 35, Kwak disclose that the second part comprises a first section (121) connected to the hinge element and a second section (Fig. 4), the second section (120) being rotatable

Art Unit: 2821

around a second axis in relation to the first section (Fig. 3), said second axis being provided substantially perpendicular to the first axis (Fig. 3).

Regarding claim 36, Kwak disclose that the third antenna element comprises a first and second section, the first section of the third antenna element being provided in the first section of the second part and the second section of the third antenna element being provided in the second section of the second part, said first and second sections of the third antenna element being electrically connectable to each other along substantially the entire interface between the first and second sections of the second part (Fig. 3, 4 and 5).

Regarding claim 37, Kwak disclose that the radio circuit comprises at least one tuning network for tuning the antenna elements to one or more frequency bands (Page 3, Col. 1, Line 54).

Regarding claim 38, Kwak disclose that the device is a cellular phone (Fig. 3).

Citation of relevant prior art

Prior art Kim (US 20020084938) disclose built-in antenna device for a cellular phone.

Prior art Saito (USP. 7,010,334) disclose folding portable radio communication device.

Inquiry


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuc D. Tran whose telephone number is (571) 272-1829. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2821

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC
July 9, 2006



HOANG V. NGUYEN
PRIMARY EXAMINER